

TISSUE-SPECIFIC EXPRESSION OF TARGET GENES IN PLANTS

Abstract of the Invention

Methods of producing plants having ~~tissue~~ ^{Root} specific expression of one or more target genes are taught, as are methods of producing plants having ~~tissue~~ ^{Root} specific and ~~stress induced~~ ^{environmental or developmentally regulated} expression of one or more target genes. A genetic construct is taught which contains a ~~nitrogen assimilation and/or metabolism~~ ^{target} gene and a promoter for the gene which is inducible under conditions ~~where it would be~~ beneficial to ~~take up, store or use nitrogen~~. The promoter can be, for example, induced 10 by the presence of ~~nitrate or other form of nitrogen and will be induced by application of~~ ^{use of the} ~~an~~ ^{ANS A2} ~~nitrogenous fertilizer~~. The stress inducible promoter btg-26 is also taught. Promoter btg-26 is isolated from the *Brassica* turgor gene - 26 and exhibits ~~osmotic~~ stress-induced and tissue-specific expression of an operatively linked gene.